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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,111	03/16/2005	Hiroshi Koyama	3273-0201PUS1	9042
2292 7590 04/23/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER HU, HENRY S	
			ART UNIT	PAPER NUMBER
			1713	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
31 DAYS		04/23/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 31 DAYS from 04/23/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

C

Office Action Summary	Application No. 10/528,111	Applicant(s) KOYAMA ET AL.	
	Examiner Henry S. Hu	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Pre-Amendment of March 16, 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-13 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3-16-2005</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. It is noted that Applicants' **IDS** (1 page) and **Pre-Amendment** both filed on March 16, 2005 was received. **Claims 4, 7 and 11-12 were amended**, while no claim was cancelled or added. Such an amendment on claims is only to remove the improper multiple to multiple claim dependency. It is also noted that this US Application is from **PCT/JP04/08846** filed on June 17, 2004. **Claims 1-13 with three independent claims** (Claim 1, Claim 5 and Claim 6) are now pending. **Applicants are reminded that Bib data sheet is showing a total of 15 claims**. Applicants need to confirm it. An action follows.

DETAILED ACTION

Election/Restrictions

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1, this is based on the preliminary search done by the examiner as well as by examining the references cited in international search report and IDS filed by Applicants. It is noted that all six independent claims are marked with an underline and are combined with its dependent claims.

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In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted as following:

I. **Claims 1-4**, drawn to a fluorine-atom-containing polymerizable unsaturated-monomer represented by the following formula (1a) or (1b).

II. **Claim 5**, drawn to **a method for producing** a fluorine-atom-containing polymerizable unsaturated-monomer represented by the following formula (1a).

III. **Claim 6**, drawn to **a method for producing** a fluorine-atom-containing polymerizable unsaturated-monomer represented by the following formula (1b).

IV. **Claims 7-11**, drawn to **a polymer** having a repeated unit corresponding to a fluorine-atom-containing polymerizable unsaturated-monomer represented by the following formula (1a) or (1b).

V. **Claims 12-13**, drawn to **a photoresist resin composition** comprising at least the polymer (of Group IV) and a photo acid generator.

3. In the case Group I, Group IV or Group V is elected, the Applicants need to further elect one of the following two species:

Species (1) monomer having formula (1a)

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Species (2) monomer having formula (1b)

4. Where the group of inventions is claimed in one and the same international application, the requirement for unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression “**special technical features**” shall mean those technical features that define a contribution which each of the claimed inventions considered as a whole, **makes over the prior art**. The inventions listed as Groups I, II, III, IV and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, although they share the special technical feature, this special technical feature does not define a contribution over the prior art for the following reasons:

5. In view of international search report for **PCT/JP2004/08846** filed on June 17, 2004, Examiner’s prior art search as well as the references or articles cited in **one IDS** filed so far by Applicants, **Claims 1-13** is either obvious or anticipated by following **seven X-cited references**: **JP 2004-219822 A, JP 2004-170871 A, JP 2003-345018 A, JP 2003-307850 A, JP 2003-280202 A, JP 2002-327013 A and JP 2002-179731 A**, each individually or in combination.

In summary, these five groups have no common features in the preparation as well as its application since they are structurally different. The scope of the claims, i.e., the metes and boundaries are distinct. Accordingly, the special technical feature linking the inventions, making fluorinated monomers and polymers from Group I, Group II, Group III, Group IV or

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Group V does not provide a contribution over the prior art, and no single general inventive concept exists. Therefore the restriction is appropriate.

6. With respect to the fact that “all five groups are structurally different each other”, Group I was drawn to monomer, each of Group II and Group III was drawn to process of making monomer, Group IV was drawn to polymer, while each of Group V was drawn to a photoresist resin composition comprising at least the polymer (of Group IV) and a photo acid generator. It is found that even the fluorinated monomer unit from Group I is indeed containing in each of Group II, Group III, Group V and Group V as a major component; each group still has different scope, process of making and process of using.

To be more specific, monomers in **Group I** can be easily prepared by different chemistry other than the process of **Group II or III** by reacting a compound (4a) or (4b) respectively with a fluoroalkylating agent (5). Based on the same rationale, the same reaction in process Group II or III can be used to prepare materially different monomers other than Group I.

Monomer in **Group I** being distinct from polymer in **Group IV** is based on the fact that the individual property of monomers will not be shown in its polymers mainly due to tremendous difference in molecular weight.

In a very close examination on polymer described in **Group IV** and its application as a photoresist composition in **Group V**, international search report has shown at least some prior

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art anticipates the polymers comprising such a monomer unit in Group I. For instance, aliphatic polycyclic monomer has been made into polymer for photoresist application in **JP 2002-327013 A**.

7. Because these inventions are distinct for the reasons given above shown as different subject matters and the search required for each group is not required for other groups have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

8. It is noted that no phone call was made to **Marc S. Weiner (registration # 32,181, tel: 703 205-8000)** due to the complexity on multiple (**five**) groups. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

9. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

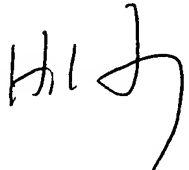
10. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

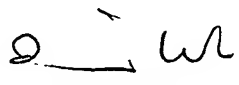
Conclusion

11. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Dr. Henry S. Hu whose telephone number is (571) 272-1103**. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The **fax** number for the organization where this application or proceeding is assigned is **(571) 273-8300** for all regular communications. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Henry S. Hu

Patent Examiner, Art Unit 1713, USPTO

April 10, 2007


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